

A Multimethod Examination of the Benefits and Detriments of Intragroup Conflict

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This study examines the structure of 105 work groups and management teams to address the question of whether conflict can be beneficial. Multiple methods were used to examine the effects of conflict on both individual- and group-level variables to provide a more refined model of intragroup conflict. Results show that whether conflict was beneficial depended on the type of conflict and the structure of the group in terms of task type, task interdependence, and group norms. Relationship and task conflicts were negatively associated with individuals' satisfaction, liking of other group members, and intent to remain in the group. In groups performing very routine tasks, disagreements about the task were detrimental to group functioning. In contrast, in groups performing nonroutine tasks, disagreements about the tasks did not have a detrimental effect, and in some cases, such disagreements were actually beneficial. Contrary to expectations, norms encouraging open discussion of conflict were not always advantageous. The results suggest that while such norms were associated with an increase in the number and intensity of relationship conflicts, they did not increase members' ability to deal with the conflicts constructively. The model developed here contributes to an integrated perspective on organizational conflict.*

While conflict is inevitable in groups and organizations due to the complexity and interdependence of organizational life, theorists have differed about whether it is harmful or beneficial to organizations. Early organizational conflict theorists suggested that conflict is detrimental to organizational functioning (Pondy, 1967; Brown, 1983) and focused much of their attention on the causes and resolution of conflict (Schmidt and Kochan, 1972; Brett, 1984). More recently, researchers have theorized that conflict is beneficial under some circumstances (Tjosvold, 1991; Van de Vliert and De Dreu, 1994).

Empirical research on the effects of conflict in groups and teams has reflected the contradictions found in the theoretical literature. Findings have shown that conflict is associated with reduced productivity and satisfaction in groups (Gladstein, 1984; Wall and Nolan, 1986) and that the absence of disagreement within top management teams and decision-making groups is related to increased performance at the group and organizational levels (Bourgeois, 1980; Schwenk and Cosier, 1993). In contrast, other evidence has demonstrated that conflict within teams improves decision quality and strategic planning, financial performance, and organizational growth (Bourgeois, 1985; Schweiger, Sandberg, and Rechner, 1989; Eisenhardt and Schoonhoven, 1990). Research on communication, group interaction processes, and diversity in groups and organizations has also indicated that conflict can be beneficial as well as detrimental (Wagner, Pfeffer, and O'Reilly, 1984; Roloff, 1987; Eisenhardt and Schoonhoven, 1990), but no integrated theory of the benefits and detriments of conflict currently exists. To understand and manage the effects of conflict in organizations and groups, this apparent contradiction in past

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research must be resolved, and a comprehensive theory of conflict must be developed. It is important to identify the situations in which conflict is destructive and those in which it is helpful and the factors that contribute to these positive or negative effects on task groups.

This paper presents and tests a model of intragroup conflict in which the relationship between intragroup conflict and group outcomes depends on the fit between the type and level of conflict and the nature of the task, the interdependence of the group, and group norms about conflict. The model focuses on conflict within organizational groups, defined as groups that (1) have more than two members, (2) are intact social systems with boundaries, so that members recognize themselves as a group and are recognized by others as a group, (3) have one or more tasks that are measurable, and (4) operate within an organization (Hackman, 1987). I use a multimethod approach, incorporating both survey and qualitative methods, to test the model and examine the impact of intragroup conflict on individual and group outcomes. These methods permit me to investigate more thoroughly the sometimes elusive and sensitive aspects of group and organizational conflict.

Hackman (1987), in setting out the criteria of group effectiveness, made a distinction between performance and affective reactions to conflict that is useful in analyzing group outcomes. One of Hackman's (1987: 323) criteria is that "the productive output of the work group meets or exceeds the performance standards of the people who receive and/or review the output." The group is not considered effective if those receiving its products do not consider them acceptable. In this study, group performance refers to the degree to which the product or service of the group meets the standards of the organization as rated by the group's superior and by the group's productivity records. An individual group member's performance is the degree to which the member meets the standards of the group and organization as rated by the group's superior, company performance evaluations, and individual productivity records. Hackman's (1987: 323) second and third criteria of group effectiveness were that "the social processes used in carrying out the work should maintain or enhance the capability of members to work together on subsequent team tasks" and that "the group experience should, on balance, satisfy rather than frustrate the personal needs of group members." In this study, affective reaction to the group refers to members' satisfaction with the group experience and the degree to which each member would like to continue working in his or her group. It is necessary to make the distinction between performance and affective reactions because the effects of conflict vary depending on the situation (i.e., type of conflict, task type) and the specific outcome examined.

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Conflict has been broadly defined as perceived incompatibilities (Boulding, 1963) or perceptions by the parties involved that they hold discrepant views or have interpersonal incompatibilities. Guetzkow and Gyr (1954:

369) distinguished between conflict based on the substance of the task that the group is performing and conflict based on the group's interpersonal relations, as did Priem and Price (1991), who characterized the two types of conflict as cognitive, task-related conflicts and social-emotional conflicts arising from interpersonal disagreements not directly related to the task. Wall and Nolan (1986) differentiated between relationship-focused people conflicts and conflicts about the substantive content of the task. More recently, Pinkley (1990), in a multidimensional scaling analysis of disputants' interpretations of conflict, discovered that people differentiate between task and relationship conflict. Building on these distinctions, I examine two types of conflict in this study: relationship conflict and task conflict. Relationship conflict exists when there are interpersonal incompatibilities among group members, which typically includes tension, animosity, and annoyance among members within a group. Task conflict exists when there are disagreements among group members about the content of the tasks being performed, including differences in viewpoints, ideas, and opinions.

Relationship Conflict in Organizational Groups

An investigation into individuals' affective reactions and their individual performance reveals relationship conflict as a significant influence on group processes and outcomes. Surra and Longstreth (1990) demonstrated that people who felt tension and conflict with the person they were dating were less satisfied in the relationship than those who didn't. Similarly, coworkers experiencing interpersonal tension should be less satisfied with the group in which they are working, because interpersonal problems enhance negative reactions such as anxiety and fear, decreasing their satisfaction with the group experience. Employees may also experience frustration, strain, and uneasiness when they dislike or are disliked by others in their group (Walton and Dutton, 1969), with a typical response being psychological or physical withdrawal from the disturbing situation (Peterson, 1983; Ross, 1989). Clearly, the negative reactions associated with relationship conflict arouse uncomfortable feelings and dejection among members, which inhibits their ability to enjoy each other and their work in the group. This suggests the following hypothesis:

Hypothesis 1 (H1): The more relationship conflict group members perceive, the lower their satisfaction, their liking of other group members, and their intent to remain in the group.

Past theory suggests that when group members have interpersonal problems and are angry with one another, feel friction with each other, or experience personality clashes, they work less effectively and produce suboptimal products (Argyris, 1962). Kelley (1979) explained that a person who is angry or antagonistic simply loses perspective about the task being performed. Other studies have suggested that the threat and anxiety associated with relationship conflict also tend to inhibit people's cognitive functioning in processing complex information (Staw, Sandelands, and Dutton, 1981; Roseman, Wiest, and Swartz, 1994) and thus inhibit individual performance.

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The results of Evan's (1965) study on research and development teams indicated that interpersonal attacks seriously limit group-level performance and productivity, as well as individual performance. Results of this study showed that when relationship conflict was present, much of the group members' efforts were focused on resolving the personal conflicts or attempting to ignore the conflicts, severely limiting group productivity. In another study, Baron (1991) found that effective communication and cooperation among group members was affected when interpersonal conflicts included components of anger and frustration. Pelled (1995) discussed three ways in which relationship conflict affects group performance. First, the limited cognitive processing resulting from relationship conflict reduces the ability of group members to assess new information provided by other members. Second, the interpersonal conflict makes members less receptive to the ideas of other group members, some of whom they may not like or who may not like them. Third, the time and energy that should be devoted to working on the task is used to discuss, resolve, or ignore the conflicts. This past theorizing and evidence on how relationship conflict influences individual and overall group performance leads to the following two hypotheses:

Hypothesis 2a (H2a): Perceived relationship conflict in groups will be negatively associated with individual performance.

Hypothesis 2b (H2b): Perceived relationship conflict in groups will be negatively associated with group performance.

Task Conflict in Organizational Groups

Task-related conflicts may also cause tension, antagonism, and unhappiness among group members and an unwillingness to work together in the future. Ross (1989) suggested that a person's normal reaction to any form of disagreement and questioning is frustration and dissatisfaction, however advantageous the outcome of the confrontation. In support of this, Baron (1990), in his study of performance evaluations, showed that critical evaluations caused negative affective reactions regardless of the outcome. On the positive side, Schweiger, Sandberg, and Ragan (1986) provided evidence that people in groups with high levels of consensus about task issues expressed more satisfaction and desire to stay in the group than members in groups with higher levels of dissension. These studies suggest that conflicts that arise over task issues can be frustrating and lead to dissatisfaction with the interaction (Amason and Schweiger, 1994). The above leads to the following hypothesis:

Hypothesis 3 (H3): The more task conflict group members perceive, the lower their satisfaction, liking of other group members, and intent to remain in the group.

Brehmer (1976), as well as others (Van de Ven and Ferry, 1980; Gladstein, 1984), suggested that the type of task a group performs influences the relationship between conflict and performance. Not surprisingly, whether task conflict is beneficial may well depend on the type of task the group performs. Routine tasks have a low level of task variability, which is defined as the amount of variety in methods and

repetitiveness of task processes (Hall, 1972). They are generally familiar and are done the same way each time, with predictable results (Thompson, 1967). In contrast, nonroutine tasks require problem solving, have few set procedures, and have a high degree of uncertainty (Van de Ven, Delbecq, and Koenig, 1976). According to Ashby's (1956) theory of requisite variety and the information-processing approach (Galbraith, 1973; Tushman and Nadler, 1978), the amount of disagreement and variety in a group needs to match the level of variety in the task for the group to be effective. If the level of task variety and amount of information required to complete the task exceeds the level of variety and number of differing viewpoints among group members, the costs associated with searching for information and evaluating solutions may become unreasonable. Inadequate knowledge or assessment can lead to poor decisions and inferior products.

Groups performing nonroutine tasks benefit from the diverse ideas of group members. When members feel pressured to agree with other group members about concepts or actions instead of presenting dissenting viewpoints, the group may overlook superior alternatives. Task conflict facilitates critical evaluation, which decreases the groupthink phenomenon by increasing thoughtful consideration of criticism and alternative solutions (Janis, 1982). Group pressure toward agreement can also squelch the creativity needed to complete nonroutine tasks effectively, because members will focus on building consensus rather than entertaining innovative ideas. Amason and Schweiger (1994) specified the positive aspect of task conflict as allowing members to identify and discuss diverse perspectives, thus increasing their understanding of the task. For nonroutine tasks, this would allow a more thorough evaluation of the criteria needed for individuals and groups to make high-quality decisions and create superior products.

Recent research has investigated some of these claims about task conflict and individual cognitive processing. Putnam (1994) showed that task conflicts helped people identify and better understand the issues involved, and Baron (1991) provided evidence that task conflicts within groups encouraged people to develop new ideas and approaches. Other research has looked at the influence of task conflict on overall group performance. In a longitudinal study, Fiol (1994) showed that when group members had different interpretations of task content issues, the group's learning and accurate assessment of the situation increased. Schwenk and Valacich (1994) showed that evaluating and critiquing the status quo yielded higher quality decisions in work groups because members confronted problems rather than avoiding or smoothing over the issues. In a study of telecommunication companies, Tjosvold, Dann, and Wong (1992) found that open discussions of opposing views in marketing groups were associated with completing tasks, using resources more effectively, and better overall service to customers. From this perspective, to increase individual and group performance in groups performing primarily nonroutine tasks, differing viewpoints should be encouraged and alternative consequences should be considered. Based

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on the negative effects that a lack of task conflict has (i.e., conformity and complacency) and on the benefits of task conflict (i.e., the increased number of ideas and opinions), task conflict should be positively related to individual and group performance in nonroutine tasks.

It is likely, however, that there is an optimal level of task conflict beyond or below which individual and group performance diminishes (Boulding, 1963; Pondy, 1967). Brown (1983) stated that even though task conflict has positive effects, too much conflict can produce low-quality outcomes when group members are performing nonroutine tasks. The protracted conflict is costly in time and effort because it hinders members' capacities to gather, integrate, and adequately assess valuable information. Gersick (1989) found that groups with extreme amounts of continuing discussion and lack of consensus were unable to move into the next stage of productive work. The members were overly committed to generating alternatives when completing the task required choosing a solution and implementing it. In contrast, Van de Vliert and De Dreu (1994) suggested that too little task conflict can lead to inactivity because a sense of urgency is lacking. In addition, complacency can lead the group and its members to identify and evaluate the task problems insufficiently. This suggests the following hypotheses:

Hypothesis 4a (H4a): In groups with nonroutine tasks, there will be a curvilinear effect of task conflict on individual performance, such that low levels of conflict will be related to low levels of performance, high levels will be related to high levels of performance, and very high levels of conflict will be related to moderate levels of performance.

Hypothesis 4b (H4b): In groups with nonroutine tasks, there will be a curvilinear effect of task conflict on group performance, such that low levels of conflict will be related to low levels of performance, high levels will be related to high levels of performance, and very high levels of conflict will be related to moderate levels of performance.

The effect of conflict differs in groups with routine, rather than nonroutine tasks. Researchers argue that conflict about the task will be a hindrance in groups performing routine tasks because it interferes with efficient processing (Barnard, 1938; Guzzo, 1986). When groups consistently perform the same activities in the same way day after day, conflicts that arise about the task may be interruptive, counterproductive, and time consuming for the group and its members. If the task is simple, discussions of task strategy are not necessary, since members can usually rely on standard operating procedures (Gladstein, 1984). Hackman, Brousseau, and Weiss (1976) demonstrated that when a group was adequately performing a fairly routine task, substantial debate of task strategy and goals decreased productivity. Other research has shown that some amount of conflict, however, can increase reevaluation of current ideas and standards (Hedberg, Nystrom, and Starbuck, 1976; Tjosvold, 1991), thus causing changes that upgrade the quality of the product and enhance individual and group performance. Overall, an absence of conflict will be detrimental to performance in groups performing routine tasks, a small amount of conflict will be beneficial, but

increasingly higher levels of conflict will be increasingly detrimental:

Hypothesis 5a (H5a): In groups with routine tasks, there will be a curvilinear effect of task conflict on individual performance, such that low levels of conflict will be related to moderate levels of performance, moderate levels will be related to high levels of performance, and high levels of conflict will be related to low levels of performance.

Hypothesis 5b (H5b): In groups with routine tasks, there will be a curvilinear effect of task conflict on group performance, such that low levels of conflict will be related to moderate levels of performance, moderate levels will be related to high levels of performance, and high levels of conflict will be related to low levels of performance.

Task Interdependence and Group Conflict Norms

The effects of both task and relationship conflict on performance and affect may depend on two other moderators: task interdependence and group norms. Task interdependence exists to the extent that group members rely on one another to perform and complete their individual jobs (Van de Ven, Delbecq, and Koenig, 1976). Increased interaction and dependence among members causes conflict to have an intensified effect on individual and group outcomes (Schmidt and Kochan, 1972; Gladstein, 1984). The task interdependence increases the amount and intensity of interaction among members, thus allowing more opportunity for conflict to occur and affect the group and its members. For example, relationship conflict will have a greater negative effect on group and individual outcomes in highly interdependent groups than in other groups. When group members do not depend on one another to complete their work and are not required to work closely with one another, interpersonal problems will not be as detrimental as they are in groups that are highly interdependent.

Task conflict will also have a greater positive effect on group and individual outcomes in highly interdependent groups than in other groups. When group members work closely with one another on a nonroutine task, for example, constructive criticism and critical evaluation will have a greater effect on performance and attitudes than in groups in which members rarely interact to complete their tasks. The above arguments suggest the following hypotheses:

Hypothesis 6a (H6a): The greater the level of interdependence within a task group, the greater the effect of conflict on individuals' satisfaction, liking of other group members, and intent to stay.

Hypothesis 6b (H6b): The greater the level of interdependence within a task group, the greater the effect of conflict on individual performance.

Hypothesis 6c (H6c): The greater the level of interdependence within a task group, the greater the effect of conflict on group performance.

Group norms about conflict will also have an effect on the relationship between intragroup conflict and group and individual outcomes. Group norms, as defined by Bettenhausen and Murnighan (1985), are standards that regulate behavior among group members. The norms of the group control how group members perceive conflict and can

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affect the degree to which conflict influences performance and members' attitudes. Openness norms (i.e., open confrontation, open discussion), which Tjosvold (1991) discussed, encourage people to express their doubts, opinions, and uncertainties. Similarly, Brett (1991), who described effective discussion norms, stated that a very important norm for a group to develop is tolerance of differing viewpoints. Conflict norms can encourage an openness and acceptance of disagreement (i.e., conflict is encouraged within this group; disagreements are accepted within this group), which can augment the positive effects of conflict or decrease its negative effects. Based on this past theorizing, performance in groups performing tasks that require problem solving and decision making should be enhanced when there are disagreements of opinions and ideas; these benefits should increase when norms encourage open communication of ideas. In contrast, groups may have norms about conflict that foster avoiding conflict and the perception that conflict is harmful (i.e., conflict should be avoided at all costs). Such norms will increase the negative influence of conflict and decrease its positive effects. Members may respond with defensiveness and animosity to even constructive criticism and disagreements, which will interfere with productivity and satisfaction in the group. This leads to the following hypotheses:

Hypothesis 7a (H7a): The more accepting of conflict the norms are within a group, the smaller the negative effect of conflict and the greater the positive effect of conflict on individuals' satisfaction, liking of other group members, and intent to remain in the group.

Hypothesis 7b (H7b): The more accepting of conflict the norms are within a group, the smaller the negative effect of conflict and the greater the positive effect of conflict on individuals' performance.

Hypothesis 7c (H7c): The more accepting of conflict the norms are within a group, the smaller the negative effect of conflict and the greater the positive effect of conflict on group performance.

Together, the hypotheses constitute a model that explains the influence of relationship and task conflict on various group and individual outcomes. According to the model, the type of task the group performs, norms about conflict within the group, and the level of interdependence moderate the effects of conflict on group functioning. I tested the hypotheses in a field study that incorporated multiple scales and comparison groups, as well as multiple methods.

METHODS

Sample

I surveyed all 633 employees in the international headquarters of a large freight transportation firm. The response rate of the survey was 93 percent (589 employees): 26 management teams and 79 work groups. I faxed surveys to three groups of on-the-road sales representatives, who did not respond. The average response rate within groups responding was 98 percent. The average education level of the employees was 14.12 years (s.d. = 2.51); their average age was 38.5 years (s.d. = 9.90); their average tenure with the company was 7.6 years (s.d. = 5.58); and 68 percent of them were female. In this firm,

employees were divided into work units, or teams, to complete tasks (3 to 12 members; $x = 5.85$, s.d. = 2.80). I defined a work unit as a group in which all personnel report directly to the same supervisor and determined work-unit memberships from departmental reports and organizational charts, which I verified in interviews with supervisors and employees. Three aspects made this an appropriate sample. First, the organization had well-delineated work groups in which members identified with their group or team. Second, there was a wide range of variability on both the independent and dependent variables: The organization had groups that performed very routine tasks and groups that performed very nonroutine tasks; it also had very interdependent groups and groups in which members were very independent in their work. Third, outcome measures were comparable across groups, because outcome records such as production reports and error counts were standardized within the organization by department.

Procedure

All employees received a six-page survey that I distributed in person with the help of three employees. The survey consisted of 85 self-report, Likert-style questions, randomly ordered. At the same time, I collected archival data such as performance appraisals and departmental output reports. Sixty-eight supervisors, managers, and vice presidents received a packet of materials to evaluate their work unit(s) or management team (100 percent response rate). Information collected in this packet included organizational charts, group and individual performance ratings, and departmental output reports.

Measures

Intragroup conflict. I developed an intragroup conflict scale to measure the amount and type of conflict in the work units. Eight items measured the presence of conflict (see Table 1, below, for items) on a 5-point Likert scale, anchored by 1 = "None" and 5 = "A lot." The coefficient alphas for the scales of relationship conflict and task conflict were .92 and .87.

Moderator variables. *Type of task* was measured using an adaptation and combination of Perrow's (1970) index of routinization, Van de Ven, Delbecq, and Koenig's (1976) dimension of task variety, and the skill-variety dimension of the Job Diagnostic Survey (Hackman and Oldham, 1975). The twenty items were coded so that high values reflected routineness. The scale had a coefficient alpha of .88. Appendix A shows the scale items and alpha reliability coefficients of the survey measures. I also used archival data such as job descriptions and departmental workflow charts and observed the tasks to confirm the degree of task routineness in each group. I used an adaptation of Van de Ven, Delbecq, and Koenig's (1976) workflow interdependence scale to measure the level of interdependence in each unit. This scale provides diagrams depicting the workflow within a unit, and group members indicate the degree to which the level of interdependence in their work unit is similar to the diagram. Van de Ven, Delbecq, and Koenig (1976) tested the validity of the scale

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using an alternative measure of interdependence (Mohr, 1971) and found a correlation between the two measures of .72, demonstrating convergent validity. Seven questions about how conflict was handled within the group measured *group conflict norms*. The items were based on Cosier and Dalton's (1990) openness scale of the Decision Conflict and Cooperation Questionnaire and were adapted to measure openness of conflicts at the group level. This scale had a coefficient alpha of .74.

Performance. *Individual performance* was measured by performance appraisal ratings, departmental records (computerized production records and error reports), and supervisors' ratings of individuals. The company conducted its semiannual performance appraisals during the month I conducted the study. The employee's immediate supervisor evaluated him or her on a scale from 0 = "Unsatisfactory" to 4 = "Extremely Satisfactory." The appraisals took into account the employee's individual performance, productivity, efficiency (speed and accuracy), and error rate (if applicable). In a separate survey that I administered at the same time as the employee survey, I also asked supervisors to rate each employee's individual work in the work unit on a 7-point Likert scale with anchors of 1 = "Not at All Effective" to 7 = "Very Effective."

Departmental records contained individual performance levels, standardized by the firm's quality development and control program. These standards incorporated productivity and error rate. For example, employees in the communication department sorted and delivered mail, sent faxes and telexes, and monitored the switchboard.

Productivity in the task of sorting mail was measured by the weight in ounces of the mail processed, while the error rate was calculated by the amount of mail sorted incorrectly. The standardized level of productivity of a coding task performed by employees in another unit was measured by the number of codes entered correctly, minus five times the number of codes entered incorrectly, to reflect the severity of an error. This was automatically calculated by the employee's computer. The company's standards of performance were set by organizational quality development analysts, who observed each employee performing the tasks involved in each job and set standards based on the mean of all employees performing the task, increased by the amount by which the best performer outperformed the next-best performer. This, according to the quality development director, "pushes the employees to continually improve." The company attempts to update the standards yearly and if the standard seems unreasonably low compared with past analyses, analysts conduct a more thorough evaluation of the employees and changes in techniques and procedures. Weekly reports were printed for each work unit showing the deviation above or below the standard for each employee on his or her various tasks.

Group performance was assessed from departmental records provided and standardized by the firm and by supervisors' ratings of the groups. The quality development analysts set work-unit standards for each work unit using a procedure similar to the one described above for individual

performance standards. Because few units performed the exact tasks as other units, the work unit standards were based on adjusted means of past performance when there were no direct comparison groups. The weekly work-unit reports included the deviation above or below the standard for each group task. Production records were not available for top management teams, so I measured their performance by aggregating performance appraisals and used the ratings given them by their supervisors, typically a vice president, on the questionnaire I administered to the supervisors. Supervisors, managers, and vice presidents rated their work units on a Likert scale of 1 = "Not at All Effective" to 7 = "Very Effective." Following the procedure recommended by Rousseau (1985) for cross-level analysis, I averaged individual responses on each of the independent, moderator, and control variables for each work unit for the analysis of the group-level dependent variables (Rousseau, 1985). Questions focused on the work unit, which I determined from a report listing who reports to whom and verified with the unit members. The average intragroup interrater correlations for each variable was between .75 and .87. In addition, I calculated the eta squared, which indicates whether any two people within the same group are more similar than two people who are members of different groups. These results exceeded Georgopoulos' (1986: 40) minimum criteria of .20, indicating that it is appropriate to aggregate the variables into group-level variables for the analysis of group performance.

Individuals' reactions. Individual satisfaction with the group was measured by a 5-point Likert question and the Kunin (1955) faces scale. Members responded to the Kunin faces scale by circling the face that indicated how happy they were working in their group. These two items were combined for an individual satisfaction measure that had a coefficient alpha of .79. Four items measured attitudes toward other unit members (i.e., liking), with a coefficient alpha of .73. Intent to remain in the group was measured using a three-item version of Kraut's (1975) measure of tenure intentions. This version included members' intentions to remain in their work unit and had a coefficient alpha of .83.

Control variables. Past research shows that group size, tenure with the firm, group composition and demographics (Nieve, Fleishman, and Rieck, 1978; Gladstein, 1984), group goals (Locke et al., 1981; Weldon, Jehn, and Pradhan, 1991), and degree of conflict resolution (Brett, 1991) influence performance and individuals' reactions. These variables were controlled in this study. I measured group size, tenure with the firm, and individual demographics by asking members to report the number by filling in a blank or checking the appropriate category (i.e., 12–16 years of education, 16+ years of education). The three-item measure of goal similarity had a coefficient alpha of .83. The three-item measure of conflict resolution had a coefficient alpha of .84.

Additional Data

Because conflict is often a sensitive issue in groups, I collected qualitative data from interviews and through

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observing groups to verify the accuracy of the quantitative data and see if there were hidden issues about conflict that might emerge in interviews or be played out in members' behaviors. I conducted 165 semistructured interviews with 55 group members, which I tape recorded. The interview-guide questions are provided in Appendix B. I conducted three interviews, ranging from 15 minutes to two hours, with each group member ($x = 68$ minutes). In addition, I also observed six workgroups over a three-month period, each for a minimum of three to four hours each day of observation (one to two days per week for four to six weeks). I observed the groups on a rotating basis so that I saw each group at various times throughout the workday. I took extensive notes, writing down all behaviors I witnessed, the order of events, and discussion among group members.

I transcribed the interviews from the recorded tapes and the notes taken during observation into a text analysis program, ArchiText (Steffin and Jennings, 1988). The program indexed the terms in each interview both alphabetically and by frequency of occurrence. I conducted content analysis to analyze systematically the topics and themes discussed in the interviews (Schneider, Wheeler, and Cox, 1992). To categorize the interview texts, I created keyword lists containing words (often synonyms) that referred to each variable of interest, using the thesaurus snowball technique developed by Jehn and Werner (1992). In this process, terms from basic theories are used as starting points to build a keyword list. For example, terms from Heider's (1958) theory of interpersonal relationships, as well as Guetzkow and Gyr's (1954) examples of substantive (task) and affective (relationship) conflict were starting points for the two conflict keyword lists. Next, I used thesauruses to develop comprehensive lists of terms related to the theory terms. I referenced each theory term and noted synonyms and then referenced and noted synonyms until the synonyms were the terms already in the keyword list. The number of times an informant or a group mentions a keyword can be identified by the frequency counts, but the meaning surrounding the term (e.g., a high level of relationship conflict or a low level of relationship conflict) cannot. Therefore, three raters, blind to the purpose of the study, and I read all interview texts and observation notes. Each of us coded the context of each keyword as to whether it provided information about the variables in the model (i.e., task conflict, conflict norms) and assigned a context rating on a 7-point Likert scale (1 = "very low level" to 7 = "very high level") for each variable. The trichotomized levels for the variables are shown in Table 2 below. The average interrater reliability was .93.

Quantitative Analysis

I conducted regressions to test the proposed hypotheses about conflict and performance and individual reactions. For each regression, the control variables were entered in step 1, the main effect variables in step 2, and the interaction variables in step 3 (Cohen and Cohen, 1983). Regressions were also performed to examine the changes in R^2 between the linear and quadratic regression equations to examine

curvilinear effects. I examined the polynomial equations to find the inflection points and shape of the curves (Neter, Wasserman, and Kutner, 1985).

RESULTS

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The 589 responses to the conflict questions were factor analyzed using principal component analysis and were subjected to oblique rotation because of the presumed interrelatedness of the conflict constructs. Table 1 provides the results of the factor analysis of the intragroup conflict items. The eigenvalues above 1.0 and the scree plot suggested a two-factor solution, in support of the theoretical distinction of two types of conflict. Items with loadings above .40 on the first factor reflected the amount of relationship conflict present in the group. The second factor contained items reflecting the level of task conflict in the group. The two factors accounted for 79 percent of the variance in the responses.

Table 1

Factor Analysis of Intragroup Conflict Items

Item	F1 Relationship conflict	F2 Task conflict
1. How much friction is there among members in your work unit?	.717	-.106
2. How much are personality conflicts evident in your work unit?	.694	-.066
3. How much tension is there among members in your work unit?	.664	-.170
4. How much emotional conflict is there among members in your work unit?	.642	-.266
5. How often do people in your work unit disagree about opinions regarding the work being done?	.018	.878
6. How frequently are there conflicts about ideas in your work unit?	.062	.836
7. How much conflict about the work you do is there in your work unit?	.243	.539
8. To what extent are there differences of opinion in your work unit?	.287	-.430

The qualitative data also demonstrate that two types of conflict (relationship and task) existed within the groups and at varying levels, as shown in Table 2, which summarizes the group-level data. One member of the International Moves group, in talking about her conflicts about the task (decisions about projects), stressed that such conflicts cause no personal animosities in the group:

We, I think, are not afraid to express ourselves [and our] different opinion(s) on the subject. We sit down in a discussion and talk about it—the group is Jon, Jeff, Mary, and myself—, okay, and we can openly express ourselves and fight about any type of situation in our group or cutting across the groups. And there's really no fear of any type of retribution whether it's directly, or you know, the person getting excited and holding a grudge behind your back or somebody trying to make it uncomfortable for you in the future.

Another member of this team was even more explicit about the low level of relationship conflict in the group: "See, what's good about here, at least from my point of view, is that there's not a lot of petty b.s. That I'm not gonna run in there and go 'I don't like the way this guy dresses,' 'He's two minutes late for work,' blah, blah, blah." Members of this team did not concern themselves with personal criticism

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and gossip about other members, yet they did realize that these types of conflicts existed separate from task-related disagreements.

My field notes and the informants' descriptions of conflict occurrences also provide examples of behavior connected with each type of conflict. The following excerpt from my field notes of the group responsible for communication processes in the international division describes a relationship conflict:

Table 2

Group Descriptions*

Group	Task type	Conflict		Open Conflict Norms			
		Relationship	Task	Task	Relationship	Performance	Satisfaction
Management— International Moves	NR	Low	High	Yes	No	High	Medium
Marketing— Special Moves	NR	Low	Low	Yes	No	Medium	High
Communication	R	High	Low	Yes	No	Low	Medium
Domestic Coders	R	Medium	Low	No	Yes	Low	Medium
Management— Government Contracts	NR	Low	High	Yes	No	High	High
Foreign Coders	R	High	Medium	No	Yes	Medium	Low

* NR = nonroutine, R = routine. All groups had high levels of interdependence ($F = 3.23$, n.s.).

It was during lunch time when the phones were ringing and no one was there. Pat was on lunch break and went over to the phone. She looked around, put her hands on her hips, and pouted a bit. Then she picked up the phone. She was very polite to the person on the phone and then slammed the receiver down (the customer does not hear this).

After lunch, Pat confronted the group member who was responsible for the switchboard while Pat was supposed to be on break. A heated disagreement followed, because Pat assumed, correctly, that the other group member was taking extra time on her break to smoke, two things (taking extra time and smoking) that Pat greatly disapproved of. In follow-up interviews, both members stated that the fight had nothing to do with work but with different views about personal habits and preferences. This turned out to be an ongoing area of contention in this group, which other members mentioned as causing strain on the personal relationships.

While the emotion wasn't generated by relationship conflict, task conflicts warranted overt displays as well, as a member of the International Moves explained: "If it's [business disagreement] an important concept there will be a lot of yelling; there's even been times when people bang their fist on the table or slam the door. It's usually when people are trying to make a point about their idea or opinion. We've all done it. We are a very vocal group when it comes to our ideas about international strategy."

The Effects of Conflict in Organizational Groups

Table 3 provides means, standard deviations, eta-squared terms for the group-level variables, and correlations between

Table 3

Means, Standard Deviations, and Intercorrelations*

Variable	1	2	3	4	5	6	7
1. Performance appraisal	—	—	—	—	—	—	—
2. Supervisor report	.33	—	.24	.34	.16	.40	.11
3. Production report	.34	.21	—	-.06	-.07	.05	-.29
4. Satisfaction with group	.07	.13	-.05	—	.03	.65	.04
5. Liking	.06	.20	.01	.68	—	.12	.11
6. Intent to remain	.14	.16	.12	.57	.28	—	-.03
7. Group size	-.16	-.31	-.22	-.00	.10	.16	—
8. Tenure	-.00	.00	.10	.05	.12	.08	-.04
9. Age	.00	-.03	.07	.15	.19	.23	-.13
10. Gender	-.02	-.09	-.08	-.02	-.01	.05	.05
11. Education	.10	.08	.02	-.03	-.10	-.18	-.07
12. Goal similarity	.04	.08	-.04	.43	.19	.21	.05
13. Degree of resolution	.10	.19	-.01	.58	.22	.27	.02
14. Relationship conflict	-.04	-.13	-.02	-.54	-.22	-.23	.01
15. Task conflict	.03	.09	.05	-.31	-.18	-.14	-.03
16. Task type	-.21	-.28	-.09	-.23	-.25	-.07	.12
17. Interdependence	.04	-.00	.06	.10	-.01	.04	.01
18. Conflict norms	.04	.19	-.05	.33	.08	.10	.09
Mean (individual)	2.48	3.89	5.16	4.44	3.70	3.37	7.36
s.d.	.66	.68	1.30	1.20	.85	1.45	4.77
Mean (group)	—	3.88	5.17	4.36	3.66	3.36	6.38
s.d.	—	.74	1.50	.92	.61	.93	3.24

* Correlations below the diagonal are individual-level variables ($N = 541$; all correlations above .05 are significant at $p < .05$); those above the diagonal are group-level variables ($N = 93$; all correlations above .14 are significant at $p < .05$). The diagonal contains the eta-squared terms in bold type for the group-level variables.

the variables in the model. In general, relationship and task conflict were negatively correlated with individuals' positive reactions. The relationships between conflict and performance are more complex and are examined in the regression analyses. The measures of satisfaction, liking, and intent to remain are highly correlated because they reflect the positive attitudes that members have about their group and their fellow group members. The performance measures are also correlated, indicating that the performance appraisals, the supervisors' reports, and the departmental records measure similar aspects of performance. As expected, the conflict variables were somewhat correlated ($r = -.17$, $p < .05$).

Table 4 presents the hierarchical regression analyses of the survey data. The overall model of intragroup conflict was supported, as indicated by the significance of the regression equations. The variables in the model explain up to 36 percent of the variance in performance and up to 48 percent of the variance in individuals' reactions. The hierarchical regressions indicate overwhelmingly that the addition of the main effects and the interactions explain a significant amount of variance in performance and individuals' positive reactions, providing support for the model of intragroup conflict. These findings hold after controlling for other potential explanatory variables (i.e., level of education, group size, tenure with the firm), making this a conservative test of the model.

Relationship conflict. Hierarchical regression results reported in Table 4 support H1, that the more relationship conflict members perceive, the lower their satisfaction, liking, and intent to stay. There is no support for H2a and

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Table 3 (continued)

8	9	10	11	12	13	14	15	16	17	18
-.06	-.11	.09	.02	.46	.55	-.14	.15	-.06	-.04	.16
.12	-.10	.05	.26	-.12	.09	-.08	-.03	-.26	.27	.25
.18	.25	-.06	-.04	.57	.78	-.57	-.35	-.31	.09	.53
-.01	.09	-.20	-.09	-.03	.06	-.08	.02	-.08	.03	.18
.25	.30	-.14	-.05	.39	.44	-.48	-.31	-.43	.07	.27
-.08	.03	.08	-.13	.08	-.03	.09	.11	.08	.11	-.06
.23	.50	-.21	.00	.24	.22	-.26	-.12	-.39	.10	.27
.14	.19	-.06	-.06	.26	.20	-.09	-.21	-.24	.15	.09
-.07	-.07	.18	-.34	-.06	-.10	.12	-.14	.40	-.00	-.07
-.02	-.00	-.03	.25	-.08	.07	-.17	.06	-.45	.12	.10
.48	.53	.43	.32	.30	.65	-.44	-.41	-.19	-.02	.49
.62	.56	.41	.34	.22	.49	-.57	-.43	-.37	.11	.73
-.40	-.42	-.41	-.24	-.18	-.05	.47	-.22	.23	-.06	-.59
-.18	-.19	-.22	-.14	.08	.02	-.17	.34	.12	.02	-.22
-.29	-.13	-.02	-.02	.04	.05	-.22	-.18	.49	-.23	-.21
.37	.39	-.02	-.00	.03	-.00	.11	.09	.05	.32	.12
.37	.39	.23	.22	.16	.14	.16	.10	-.03	.02	.30
91.37	3.18	1.69	2.75	3.54	3.46	2.25	2.66	3.00	2.22	3.09
78.90	1.10	.46	.63	1.02	.92	1.18	1.05	.59	.74	1.28
93.75	3.23	1.68	2.80	3.56	3.47	2.23	2.61	2.96	2.23	3.10
48.80	.67	.54	.45	.70	.63	.81	.71	.45	.48	.79

H2b, that relationship conflict will be negatively associated with individual or group performance. While the quantitative data show no effect of relationship conflict on performance, it did affect members' perceptions of their groups. The interviews and observation revealed that members were psychologically distressed when there were frequent arguments about interpersonal issues among members. The language was harsh (i.e., bitch, asshole, jerk) and behavioral responses were strong (i.e., slamming doors, pouting, crying, or "tearing up"). A member of the Communication group told me: "Personality conflicts between creative people. So, and at that time, Trina sat over here, and that's when we first had problems was because her radio was too loud and she was a bitch." These interpersonal problems manifested themselves in intense dislike and frustration, as in this comment: "Trina and I don't get along, we never will get along. We dislike each other and that's all there is to it." A member of the Foreign Coders group expressed exasperation with such conflicts: "Personality conflicts. Personality conflicts, I can't handle it." The members of these groups consistently reported low levels of satisfaction, intent to remain, and liking on their surveys.

Task conflict. Hypothesis 3, on task conflict and individuals' reactions, was partially supported by the regression analyses. Task conflict was negatively related to satisfaction and intent to remain (beta = -.13 and -.16, respectively, $p < .01$). A group member from the International Moves unit explained that "even though it [task conflict] seems to help make a decision, it still is uncomfortable. I don't know if I like working in a group where there is so much arguing."

The hypothesized interactions of task conflict and task type (H4a, 4b, 5a, and 5b) were supported for individual and group performance as rated by supervisors (beta = -.25

and $-.54$, and $p < .01$ and $.05$, respectively) and individual production reports (beta = $-.29$, $p < .05$). To better understand the interaction, I dichotomized task type into routine task groups and nonroutine task groups and performed regressions without the task variable. In results not shown here, task conflict, as predicted, was consistently negatively related to performance in routine-task groups but had a positive effect in nonroutine-task groups (individual productivity and group productivity had betas of $.29$ and $.33$, respectively, $p < .01$).

Members of effective nonroutine-task groups, like the International Moves group, displayed high levels of conflict over task issues. In groups performing routine tasks, members generally felt that the task-related conflicts were detrimental and contributed to the low performance and dissatisfaction of members, as did one member of the Domestic Coders group: "We do discuss different codes and the details of some things, but it just seems to interfere with getting things done and we all just do it the way we had been doing it anyway. It's kind of counterproductive." This employee went on to clarify this scenario: "We seem to fight about these things and they typically can't be changed because that's the way the job has to be done. So the arguments just seem to get in the way of the work."

To test the hypothesized curvilinear relationship between task conflict and performance, I performed hierarchical regressions. In results not shown here, the change in R^2 from step 1 (linear model) to step 2 (curvilinear model; quadratics added) was significant for performance appraisals (F change = 2.71 , $p < .05$) and marginally significant for group performance (F change = 2.31 , $p < .10$). All of the curvilinear equations examining individual and group performance explained more variance than the linear equations. When predicting individual performance in groups in which members perform nonroutine tasks, the inflection point of task conflict is at point $(x, y) = 5.25, 3.63$, with the y -intercept at 2.07 and the curve opening upward. Thus task conflict is positively related to individual performance up to a certain point (at $x = 5.25$, representing a high amount of task conflict), beyond which individual performance declines, which supports hypothesis 4a. Similar curves are found for nonroutine-task groups when group performance (group supervisors' reports and group production reports) is examined, providing support for H4b.

When predicting individual performance in groups performing routine tasks, the inflection point of task conflict is at point $(x, y) = 2.16, 5.04$, with the y -intercept at 4.68 and the curve opening downward. Thus task conflict is positively related to performance up to a certain point (at $x = 2.16$, representing a low amount of task conflict), beyond which individual performance declines, supporting hypothesis 5a. A similar relationship is found for routine-task groups when group supervisors' reports are examined, providing support for H5b. An excerpt from a member of the Domestic Coders group, a group performing routine tasks, illustrates an instance in which a small amount of task conflict was beneficial, as hypothesized and supported by the survey results: "We have meetings on a lot of the stuff. As far as

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Table 4

Hierarchical Regression Analyses*

	Satisfaction with group (N = 549)	Liking (N = 565)	Intent to remain (N = 518)	Individual			Group	
				Performance appraisal (N = 471)	Supervisor report (N = 445)	Production report (N = 361)	Supervisor report (N = 88)	Production report (N = 76)
Step 1: Control variables								
Group size	.02	-.04*	-.05	-.15***	-.30***	-.22***	.01	-.24*
Tenure	-.04	.00	-.01	.01	.04	.10	.14	.24*
Age	.09*	-.04	.11**	.00	-.07	.02	-.20	-.15
Gender	.03	-.03	-.03	.03	-.05	-.05	-.05	.19
Education	-.04	-.04	-.08	.09*	.03	.00	-.03	.25*
Goal similarity	.18***	.34***	.10*	-.00	-.01	-.06	-.10	-.22
Degree of resolution	.49***	.39***	.27***	.09	.18***	-.01	.16	.20
R ²	.375	.402	.140	.042	.134	.063	.048	.234
F	43.27***	48.92***	11.87***	2.92**	8.82***	3.35***	.59	2.79**
Step 2: Main effects								
Conflict norms (N)	-.06	.04	-.06	-.04	.10*	-.05	.16	.43**
Interdependence (I)	.07*	.07*	.06	.01	-.04	.06	-.04	.22
Task type (TT)	-.13**	-.04	-.16**	-.19**	-.21***	-.05	-.04	-.24*
Relationship conflict (RC)	-.22***	-.13***	-.29***	.01	-.01	.02	-.23	.28
Task conflict (TC)	-.16***	-.02	-.13*	-.06	.20*	.13*	-.33*	-.20
TC ²	-.29**	-.05	.05	.12*	-.17	-.09	.33*	-.41**
Change in R ²	.097	.030	.118	.034	.048	.012	.138	.156
F change	15.34***	4.37***	13.44***	2.83**	3.89***	.70	2.12*	2.47*
R ²	.472	.432	.258	.076	.181	.078	.186	.390
Step 3: Interactions								
TC × TT	-.36***	-.15	-.53***	.11	-.25**	-.29*	-.54*	-.10
RC × I	.24*	.47***	.19	.32	.45**	-.22	.46	-.07
TC × I	-.13	-.23*	-.15	.18	.37*	.40*	.22	.36
RC × N	-.15*	-.34**	-.05	-.03	.01	.01	-.33	.23
TC × N	.17	-.17*	-.10	.14	.11	.20*	.05	.54*
Change in R ²	.015	.068	.016	.016	.031	.009	.099	.141
F change	1.75**	8.48***	1.38**	1.02	1.93*	.42	1.61*	2.60*
R ²	.487	.500	.274	.092	.212	.088	.285	.531
Adjusted R ²	.465	.478	.244	.051	.171	.027	.090	.360
F	22.21***	23.62***	8.96***	2.20***	5.00***	1.45*	1.45	3.09***

*p < .05; **p < .01; ***p < .001.

* Standardized betas are reported.

how to code tonnage of the drivers and profit. We have some discussions and some disagreements. It helps to get things straightened out." This was the same informant who had told me earlier that task conflict was counterproductive. When I asked him to clarify this, he explained that small conflicts seem to be helpful, but when the level of conflict increased in his or other similar teams, it caused disruptions in process and time delays that interfered with performance. Observation also indicated that a small amount of conflict assisted in attaining a more efficient level of functioning when it led to readjusting standard operating procedures. For example, some conflict occurred in the Communications group about the efficiency of making hard copies of telexes when they are automatically saved by the system.

Interdependence. There was partial support for hypotheses 6a, 6b, and 6c, on the level of interdependence in a task group and the association between conflict and individuals' reactions and individual and group performance, respectively. The results were mixed, however, depending on the type of conflict. The effect of relationship conflict on outcomes (individual performance rated by supervisors, satisfaction, liking; beta = .45, .24, .47; $p < .01, .05, .001$, respectively) was generally greater in highly interdependent groups, and the effect of task conflict was greater in groups with low levels of interdependence (individual performance rated by supervisors and production reports, and liking; beta = .37, .40, -.23, respectively, $p < .05$).

The interviews illuminate how relationship conflicts were intensified by a high level of interdependence among members. The increased interaction, the interdependent nature of the job, and the physical setup of the unit, which promoted close interaction but caused infringements on people's personal space, all were given as factors that increase relationship conflict. A member of the Communication group explained it this way: "We're so interdependent on each other to be there. You know, if both switchboard operators were missing then we would not be able to do our job because we'd have to do the telephone job. If we were both missing then one person would have to . . . you know, it's just so intertwined so that when someone isn't there and is out visiting, that's kind of frowned on."

Conflict norms. Hypothesis 7a, on the effect of conflict norms on individuals' reactions, was partially supported for task conflict. When predicting liking among members, norms promoting openness increased the negative effect of task conflict (beta = -.17, $p < .05$). Hypotheses 7b and 7c, on the effect of conflict norms on individual and group performance, respectively, were supported for task conflict. When predicting individual and group performance, norms promoting openness enhanced the beneficial effects of task conflict (beta = .20 and .54, respectively, $p < .05$). The interviews and observation provide illustrations of the impact of norms for openness on the benefits of task conflict. In high-performing nonroutine-task groups, members stated that "we . . . are not afraid to express ourselves" and "we can openly express ourselves." In addition, as a member of the International Moves group told me: "If a decision is being made, if someone is contemplating implementing a decision or a new process, I think I'm being open-minded about it. There's really no fear of any type of retribution." And another member of the same group said, "You know, just being comfortable with a person and joking around with the person and knowing you can talk about any subject. I think that means a lot and helps us get the job done." My observation indicated that the norms allowed an open, healthy, constructive atmosphere about task conflict in these high-performing groups. This atmosphere permitted members to investigate various alternatives and therefore perform well on their nonroutine tasks.

There was a significant interaction between relationship conflict and group conflict norms in the opposite direction of that proposed: Groups with relationship conflict and

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conflict-avoidance norms had higher satisfaction and liking levels than groups with relationship conflict and openness norms ($\beta = -.15$ and $-.54$; $p < .05$ and $.01$, respectively). The qualitative data suggested that norms of openness about conflict did not provide an atmosphere of acceptance and forgiveness among members; rather, the conflict escalated and became more vicious. The Foreign Coding group had strong norms of openness about relationship conflict and a high number of very intense relationship conflicts. The members of this group were very dissatisfied and were actively looking for escapes from the group (i.e., longer breaks, internal and external job searches, temporary transfers to other units).

DISCUSSION AND CONCLUSIONS

The study reported here makes a contribution to existing research on intraorganizational conflict, group processes, and group outcomes by specifying when conflict is and is not beneficial. The results indicate that the type of task group members perform affects whether conflict helps, hinders, or has no significant impact on individual and group performance. In groups performing routine tasks, disagreements about the content of the task were generally detrimental to group functioning. The task-related conflicts interfered with the routine, standardized processes and distracted employees from their "real" work (i.e., meeting quotas and quality requirements). In addition, any suggestions prompted by conflicts over task issues in groups with routine tasks were usually in vain, since members continued to "do it the way [they] had been doing it anyway." In contrast, in groups performing nonroutine tasks, disagreements about the task did not have a detrimental effect and, in some cases, were actually beneficial. The interviews and observations illustrated that effective nonroutine-task groups often had high levels of task conflict and norms promoting open discussion of task issues. The open discussions and conflicts about task content promoted critical evaluation of problems and decision options, a process crucial to the performance of nonroutine tasks. Thoughtless agreement and complacency, which can have disastrous effects (Janis, 1982), were also decreased by the task-related conflicts.

The results also show that the effects of task conflict are not strictly linear in task groups. Curvilinear analyses indicated that there was an optimal level of task conflict in nonroutine-task groups. My observation of the groups and interviews with the members indicated that an absence of conflict was associated with complacency about problems and decisions. As task-related arguments increased, members found that they were better able to critically assess information related to their job. High levels of conflict, however, interfered with group performance. Members became overwhelmed with the amount of conflicting information and continuously became side-tracked and lost sight of the main or original goal of the discussion. Additionally, while high levels of task conflict were detrimental to productive work processes in groups performing routine tasks, because of confusion over responsibilities and time management problems, low levels

were often necessary for effectively delegating tasks and allocating resources.

Relationship conflict was detrimental regardless of the type of task the group was performing. Personal problems that were considered petty were seen as detrimental to satisfaction and to the group's long-term survival. The relationship conflicts caused distress and animosity among members, encouraging withdrawal. Task-related conflicts also sometimes decreased members' satisfaction and increased their intent to leave the group, even though in nonroutine-task groups with openness norms about task conflict, members not only performed well but were quite satisfied despite the high level of conflict. Interestingly, even though task-related discussions and arguments may assist nonroutine groups in performing well, members may be very dissatisfied with the process and want to leave. One possible explanation is that certain group members may have their own preferences for being open about or avoiding conflict, and even productive task conflict may make them uncomfortable. These paradoxical effects of task conflict may be one explanation for some of the discrepancies in past studies investigating the link between satisfaction and performance (e.g., Staw and Barsade, 1993).

The results of the survey did not support the hypothesis that relationship conflict would be negatively related to group and individual performance, which is consistent with past studies of the effect of interpersonal relations on performance (e.g., Mullen and Cooper, 1994). The interviews and observations illustrate that while relationship troubles cause great dissatisfaction, the conflicts may not influence work as much as expected, because the members involved in the conflicts choose to avoid working with those with whom they experience conflict. Some group members attempted to redesign their work area or job in the group so that they no longer would have to interact with the others involved in the conflict, sometimes by moving to another desk or getting needed information from another source.

The survey results on the impact of task interdependence and group conflict norms on the relationship between conflict and various group outcomes were quite complex. Interdependence did not consistently influence the relationship between conflict and performance and individuals' reactions. Interdependence increased the negative impact of relationship conflict, as expected, but decreased the negative impact of task conflict on individuals' reactions. Members of nonroutine task groups stated that they realized they must work together and have disagreements and discussions about task-content issues to complete the group task. This may have therefore lessened the tendency of these members to feel dissatisfied about these necessary task-focused arguments. As hypothesized, the task conflicts did have a greater impact on performance in interdependent groups. This is consistent with the contingency approach, proposed by Van de Ven (1976), which asserts that not only will conflict be more likely in interdependent units but that it will be necessary to process the high levels of information and uncertainty present in these units. In addition, Van de Ven and Ferry (1980) stated

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that the task conflicts in interdependent units would help provide a clear understanding of goals, expectations, and behaviors, increasing performance and also lessening the negative impact of the arguments on individuals' reactions. In contrast, members in groups performing routine tasks reported that the interdependence of members magnified the negative impact of task conflicts because the disruptions in the process of standardized functions "interfered with the interaction needed to complete the task effectively." In less dependent groups, members tended to focus on their own tasks, despite the conflicts, and not interfere with the work of others.

I hypothesized that conflict norms promoting openness would increase the beneficial aspects of conflict and that conflict-avoidance norms would increase the detrimental effects. In actuality, while openness norms did increase the beneficial aspects of task-related conflict on performance, they also increased the negative impact of relationship conflict rather than diminishing its negative effects. Groups with conflict-avoidance norms about relationship conflicts had more satisfied members than groups with openness norms. This finding contradicts much of the past group research on T-groups and process consultation (Campbell and Dunnette, 1968) and conflict resolution (Van de Ven and Ferry, 1980; Brett, 1984) that suggests that open, honest communication and confrontation promotes effective group interaction. It is consistent, however, with more recent research by Murnighan and Conlon (1991), who found that successful string quartets did not openly discuss heated interpersonal conflicts, recognizing that these conflicts could be counterproductive. The successful quartets resolved their conflicts by compromises (i.e., taking turns), staying focused on the task, and leaving interpersonal or external conflicts (i.e., personality problems, trouble at home) aside. Similar to the successful groups in the present study, the norms about relationship conflict in Murnighan and Conlon's successful groups were to avoid it; members were discouraged from venting interpersonal problems.

The cross-sectional survey design used in this study limits testing a dynamic model of conflict, raising a number of interesting questions for future research. A dynamic model of conflict would take into account the possibility that one type of conflict may change into another type. Task conflict that is not resolved may be transformed into relationship conflict; alternatively, a relationship conflict may be manifested in a task conflict episode. The cross-sectional design also limits my ability to untangle causal relationships in the model. Not only does conflict influence performance and individuals' reactions, but past performance and affect may influence the level and type of conflict in the group. When members perform well, like the other members of the group, and intend to work together again, they will most likely have fewer relationship conflicts. By contrast, if members realize that their arguments about the task assist them in reaching an excellent decision, they may promote critical debate and task conflicts in future interactions. A longitudinal design could be used to examine the factors that affect the onset and duration of conflict, the changes in

conflict over time, the factors that transform conflict from one type to another, and the inconsistencies between latent and manifest conflict.

Past theorizing has suggested that conflict may have beneficial functions in organizations. While past empirical research has been contradictory, the data from this study illustrate the various beneficial and detrimental roles of conflict in different types of organizational groups, ranging from production groups to executive decision-making teams. This study also shows that conflict is a complex phenomenon that, in an organizational context, can be interpersonal or task-focused, destructive or productive, and can be managed, ignored, or barely tolerated. The model developed here is a first step in creating an integrated perspective that helps us see beyond the sources and management of conflict and explore the true power of this force in organizations.

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APPENDIX A: Survey Scales

Task Type (alpha = .88)

1. The type of work done in my work unit is fairly consistent, so that people do the same job in the same way most of the time.*
2. I encounter a lot of variety in my normal working day.*
3. The methods I follow in my work are about the same for dealing with all types of work, regardless of the activity.
4. To what extent is there a specific "right way" to do things in your job?
5. To what extent are there specific standards which you must meet in doing your work?
6. How much variety is there in your job?*
7. How often is your job boring?
8. How often can you predict how long a task will take?
9. How much does your job include problem-solving?*

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10. How much routine is there in your job?
11. To what degree are there set patterns in your work day?
12. How often is your work simple?
13. To what extent is your job challenging?*
14. In general, how much actual "thinking" time do you usually spend trying to solve such specific problems?*
15. To what degree does your work include actually performing tasks (rather than planning)?
16. To what degree are there set patterns in your work week?
17. *To what degree does your job include being creative?**
18. To what extent is your job tiresome?
19. How often does your work give you a sense of accomplishment?*
20. To what extent do you feel like you are doing the same thing over and over again?

Conflict Norms (alpha = .74)

1. Conflict is dealt with openly in my work unit.
2. People in my work unit try to avoid conflict at all costs.*
3. If conflict arises in my work unit, the people involved initiate steps to resolve the conflict immediately.*
4. Conflict is detrimental to getting the work done in my work unit.*
5. Emotional displays (i.e., crying, yelling) are accepted in my work unit.
6. Disagreements are encouraged in my work unit.
7. Differences of opinions about job responsibilities are avoided in my work unit.*

Satisfaction with the Group (alpha = .79)

1. How satisfied are you working in this work unit?
2. Circle the face that indicates the way you feel about working in this work unit in general (Kunin, 1955).

Liking (alpha = .73)

1. I generally like the other members of my work unit.
2. The other people in my work unit are my friends.
3. There is little group spirit in our work unit.*
4. My fellow work unit members are satisfied with being a member of this work unit.

Intent to Remain (alpha = .83)

1. How long do you expect to stay in *this* work unit?
2. If you have your own way, will you be working in this same work unit three years from now? [0 = no, 1 = yes]
3. To what extent have you thought seriously about changing work units since beginning to work in your current work unit?*

Goal Similarity (alpha = .83)

1. As a work unit, we have similar goals.
2. The main goals of my work unit are the same for all members in my work unit.
3. We (my work unit) all agree on what is important to our group.

Conflict Resolution (alpha = .84)

1. Disagreements about the specific work being done are usually resolved in my work unit.
2. Emotional conflicts are usually resolved in my work unit.
3. Disagreements about who should do what are usually resolved in my work unit.

* Reverse-scored.

APPENDIX B: Questions for Semistructured Interviews

The following questions were used as a guide during the interviews to collect information and generate discussion.

Initial Interview Questions

1. How long have you been with this firm?
2. What did you do previously?
3. How long have you been in this work unit?
4. What is it called?
5. Where else have you worked in this firm?
6. What type of work do you do?
7. Describe a typical day for you at work (include breaks, lunch).

8. Does everyone in your work unit do the same thing?
9. How is what you do different?
10. What kinds of things do you work on together?
11. Do you work well together?

Main Interview Questions

1. Did anything change in the department in the last couple of weeks? Did anything new happen?
2. Did any problems arise? Did they go smoothly?

Semi-focused Questions

1. List the parts of the work unit (people, equipment, roles).
2. What is required to work in your work unit (skills, materials)?
3. Why do you work here? Why do people work in your work unit?
4. What is needed to do a good job?
5. What's important about your job? Why are you important to this division?
6. What activities are rewarded in your work unit?
7. What activities are frowned upon?
8. Why do people like to work at this firm? in this division? in your work unit? Why do you?
9. Why do people dislike working at this firm? in this division? in your work unit? Why do you?
10. What type of disagreements/tension/problems occur in your group? Describe the conflicts.
11. How are they handled?

Supervisor Interview Questions

1. How long have you supervised this work unit?
2. What type of work do the people do?
3. Describe a typical day at work (include breaks, lunch), as you see it, for your employees.
4. Does everyone in your work unit do the same thing?
5. How does what they do differ?
6. What kinds of things do they work on together?
7. Do they work well together?
8. Do they work better alone?

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